## RECTIPTO 07 APR 2005

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



## 

(43) International Publication Date 3 June 2004 (03.06.2004)

PCT

(10) International Publication Number WO 2004/047204 A1

- (51) International Patent Classification7: H01M 8/00, 8/10
- (21) International Application Number:

PCT/RU2003/000500

(22) International Filing Date:

18 November 2003 (18.11.2003)

(25) Filing Language:

English

(26) Publication Language:

English

- (30) Priority Data: 2002130656 18 November 2002 (18.11.2002) RU
- (71) Applicant (for all designated States except US): ZA-KRYTOE AKTSIONERNOE OBSCHESTVO "IN-DEPENDENT POWER TECHNOLOGIES" [RU/RU]; Moskovsky pr-kt, 78, lit.A, pom.2N, St.Petersburg, 196084 (RU).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): KARICHEV, Ziya Ramizovich [RU/RU]; Kuchin pereulok, 12-1, Moscow, 129626 (RU). TARASEVICH, Mikhail Romanovich [RU/RU]; Novoslobodskaya ul., 12-13, Moscow, 103030 (RU).

- (74) Agent: LAW FIRM "GORODISSKY & PARTNERS" LTD.; EGOROVA Galina Borisovna, B. Spasskaya ul., 25, stroenie 3, Moscow, 129010 (RU).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ALCOHOL-AIR FUEL CELL

(57) Abstract: The invention relates to the field of fuel cells, in particular to alcohol-air fuel cells (AAFC) and may be used during the production of generators on the base of these AAFC. In accordance with the invention AAFC comprises an anode chamber with liquid catalytically active anode, an air chamber with catalytically active gas-diffusion cathode, an electrolyte chamber with a liquid electrolyte and membrane electrolyte, wich is positioned between the cathode and the anode, wherein an aqueous alkaline solution is used as the liquid electrolyte and a non-platinum catalyst, tolerant in respect to alcohole, is used as the cathode catalist. The object of the invention is to create an AAFC that has high efficiency and is inexpensive.



WO 2004/047204